WHAT IS CLAIMED IS:

1. A method of manufacturing a micro-mechanical structure, comprising the steps of:

preparing a substrate having an insulation unit with a surface on which a predetermined circuit is provided;

forming at least one electrode patterned in a predetermined shape on the substrate;

forming a sacrificial layer having a hole on the surfaces of the electrode and the substrate;

forming a movable structure around the hole of the sacrificial layer;

completing the movable structure by removing the sacrificial layer;

forming a passivation layer on the substrate having the movable structure using plasma enhanced chemical vapor deposition; and

etching the passivation layer from a part of the top of the electrode and from the top of the movable structure using plasma etching.

2. The method of claim 1,wherein the passivation layer is removed without using photolithography which uses photoresist.

3. The method of claim 1, wherein the passivation layer is formed by one of (1) repetition of deposition followed by etching, and (2) repetition of deposition followed by etching followed by deposition.

4. The method of claim 3, wherein the passivation layer is removed from the part of the top of the electrode and the top of the movable structure during the repetition of deposition followed by etching and provided only on (1) an entire portion of the substrate that is positioned directly opposite the moveable structure so that a part of the top of the electrode remains exposed, and (2) the entire moveable structure except for a top surface of the moveable structure.

5. The method of claim 3, wherein the passivation layer is formed by the repetition of deposition followed by etching followed by deposition so that a thickness of the passivation layer formed on the part of the top of the electrode and on the top of the movable structure is less than a thickness of the passivation layer formed on the other portions.

6. The method of claim 1, further comprising the step of packaging the micro-mechanical structure.

7. The method of claim 1, wherein the passivation layer is an anti-stiction layer formed of at least one selected from the group consisting of a fluorocarbon polymer, a hydrocarbon polymer, and a hydrofluorocarbon polymer.

8. A micro-mechanical structure which is manufactured by the method of claim 1, the micro-mechanical structure comprising;

a substrate;

at least one electrode formed on the substrate;

at least one movable structure supported by the substrate, such that the movable structure is separated from the substrate by a predetermined distance and movable to contact the electrode; and

a passivation layer provided only on (1) an entire portion of the substrate that is positioned directly opposite the moveable structure so that a part of the top of the electrode remains exposed, and (2) the entire moveable structure except for a top surface of the moveable structure.